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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,041	03/16/2004	Jin Hong Kim	46500-000143/US	1235

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EXAMINER	
RAEVIS, ROBERT R	

ART UNIT	PAPER NUMBER
2856	

MAIL DATE	DELIVERY MODE
07/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/801,041	KIM ET AL.	
	Examiner	Art Unit	
	Robert R. Raevis	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 6-14-07.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 8,10-14,18-21 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 8,10-14,18-21 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 8,10-14,18-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As to claim 11, where is there support for the "inversely **proportional**" (highlighting added) relationship? (Note: Y=1/X is an indication of an inversely **proportional** relationship or Y to X. Applicant does not have support for that relationship.) There is no support for any proportionality as claimed. Where is there any proportional teaching in the argued Para 17? Para 17 provides for only two points that may or may not be proportionally related.

As to claim 11, where is there support for the "inversely" relationship? Presently, Para 17 simply says that when the predetermined number of turns is high, that the pressure is then low; and that when the predetermined number of turns is low, that the pressure is high. That does not provide for an inverse relationship. All that states is that at some predetermined number of rotations, that the pressure changes from low to high. There is not support for any inverse relationship. This is only support for two different groups (one above, the other below the predetermined number), but no relationship between the points within either of the two groups.

Para 16.1 is new matter to the extent of "inversely related".

As to claim 8, where is there support for "determining the endurance of the optical disc based on a jitter value of 10%"? Please note that the single horizontal dashed line in Figure 6

does not seem related to failure, as suggested on p. 7 of REMARKS. That single line is just there in Figure 6.

Claims 8,10-14,18-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As to claim 8 "jitter value" is undefined. In particular, Applicant's provided definition of "jitter" (p. 7 of REMARK) relate a "jitter value" variations in the *duration* of any specified, related *interval*"(italics added). Does this mean that a "jitter" is a measure of time? If so, how is the period of time defined such that the claimed 10% may have meaning? If it's not time, but is a variation of a physical parameter, what parameter might that be? It may be beneficial for Applicant to provide a copy (i.e. reference) for his definition. A photocopy from his dictionary would do. What is the relationship between determination of endurance and jitter? What is physically measurable such that the "10%" value can be measured and recognized to provide for an indication of failure (as argued on p. 7 of REMARKS). Undersigned recognizes the term "jitter" in Para 154 of Hayashida, but the term is not explained there.

As to claim 18, "symbol error rate" is undefined. How is this used to determine endurance?

As to claim 19, "bit error rate" is undefined. How is this used to determine endurance?

As to claim 20, "servo error signal" is undefined. How is this used to determine endurance?

As to claim 21, "tracking error signal" is undefined. How is this used to determine endurance?

Claims 8,10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashida et al.

As to claim 8, Hayashida et al teach (Para 91) a method to test endurance of an optical disc, including: placing the disc on a turntable; rotating the turntable and disc; applying pressure to the disc using a scratching unit (abrasive wheels) while the disc rotates a number of turns, so as to scratch the surface of the disc; and ascertaining the abrasion resistance of the sample, said resistance indicative of endurance. Force applied to the disc from above employs a pressure that is applied in the vertical direction. Jitter less than 10% is in the "satisfactory range" (Para 153).

Hayashida does not refer to "up to five" rotation turns.

As to claim 8, it would have been obvious to employ up to five rotation turns as TABLE 3 illustrates use of 5 abrasion cycles, while relating the cycles to the "rotating the turntable" (Para 91), suggestive of turning the specimen of interest 5 rotations during testing.

Hayashida refers (Para 91) to a range of cycles under a range of loads, but does not base one (loads) on the other (cycles).

As to claim 10, it would have been obvious to apply a reduced load for a greater number of cycles as it would be desirable to assure that the wheels do not fully pass through the disc of interested, to thus permit for a measurement of a parameter (i.e. the change of thickness" (Para 94)) that's indicative of abrasion resistance.

As to claim 11, one of ordinary skill would be inclined to try a greater force (i.e. double) and reduced number of turns (by half) to produce a test that may be completed over a shorter time, necessarily employing a proportional relation.

As to claim 12,13, it would have been obvious to employ a non-rotating test piece (in place of a wheel) in Hayashida as Hayashida teaches (Para 90,92) that steel wool may effectively permit for abrasion testing of a rotating body. Such a test piece must provide for a sufficient force/area ration to provide for a measure of abrasion. The pressure provided in Applicant's claim 12 is within the range of sufficient pressures, especially as Nakagawa's test piece is non-rotating, just like Applicant's.

As to claim 14, Hayashida suggests (Para 94) depth measurement as a means to evaluate abrasion resistance. In addition, one of ordinary skill would provide for reference values indicative of whether resistance for a particular disc is acceptable. The threshold value provided in Applicant's claim 14 seems to be within one of ordinary skill.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert R. Raevis whose telephone number is 571-272-2204. The examiner can normally be reached on Monday to Friday from 5:30am to 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams, can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RAEVIS